POWER-OFF NOISE SUPPRESSION CIRCUIT AND ASSOCIATED METHODS FOR AN AUDIO AMPLIFIER DEVICE

Abstract of the Disclosure

An audio amplifier device includes a power supply having an output for providing a supply voltage, a voltage divider connected to the output of the power supply for providing a divided supply voltage, and an audio amplifier that further includes a supply voltage rejection circuit. The audio amplifier has a first input for receiving an input audio signal, a second input for receiving the supply voltage, a third input for receiving a supply voltage rejection signal for the supply voltage rejection circuit, and an output for providing an output audio signal. A power-off noise suppression circuit has a first input for receiving the divided supply voltage and an output for providing the supply voltage rejection signal. The power-off noise suppression circuit sets the supply voltage rejection signal equal to the divided supply voltage during power-off of the power supply so that a rate of decrease of the supply voltage is greater than a rate of decrease of the supply voltage rejection signal for reducing noise in the output audio signal during the power-off.